Claims

1. A method of enhancing resistance to a plant pathogen in a plant, said method comprising:

(a) providing a transgenic plant cell that expresses an isolated DNA molecule encoding a kinase domain of a MAPKK polypeptide; and

(b) regenerating a plant from said plant cell wherein said isolated DNA molecule is expressed in said plant, and wherein said plant has enhanced resistance to a plant pathogen compared to a corresponding untransformed plant.

2. The method of claim 1, wherein said plant is a dicot.

3. The method of claim 2, wherein said dicot is a crucifer.

4. The method of claim 3, wherein said crucifer is Arabidopsis.

5. The method of claim 1, wherein said plant is a monocot.

6. The method of claim 1, wherein said kinase domain is constitutively active.

7. The method of claim 1, wherein said MAPKK polypeptide is MKK4.

8. The method of claim 1, wherein said MAPKK polypeptide is MKK5.

9. The method of claim 1, wherein said MAPKK polypeptide activates a gene involved in pathogen defense.

10. The method of claim 1, wherein said MAPKK polypeptide activates the PAL1, GST1, WRKY29, or PR1 gene promoters.

11. A method of enhancing resistance to a plant pathogen in a plant, said method comprising:

(a) providing a plant cell that expresses an isolated DNA molecule encoding a kinase domain of a MAPKKK polypeptide; and

(b) regenerating a plant from said plant cell wherein said isolated DNA molecule is expressed in said plant, and wherein said plant has enhanced resistance to a plant pathogen compared to a corresponding untransformed plant.

12. The method of claim 11, wherein said plant is a dicot.

13. The method of claim 12, wherein said dicot is a crucifer.

14. The method of claim 13, wherein said crucifer is Arabidopsis.

15. The method of claim 11, wherein said plant is a monocot.

16. The method of claim 11, wherein said kinase domain is constitutively active.

17. The method of claim 11, wherein said MAPKKK polypeptide is MEKK1.

18. The method of claim 11, wherein said MAPKKK polypeptide is ANP1.

19. The method of claim 11, wherein said MAPKKK polypeptide activates a gene involved in pathogen defense.

20. The method of claim 11, wherein said MAPKKK polypeptide activates the PAL1, GST1, WRKY29, or PR1 gene promoters.

21. A method of enhancing resistance to a plant pathogen in a plant, said method comprising the steps of:

(a) providing a plant cell that expresses an isolated DNA molecule encoding a polypeptide comprising a polypeptide having substantial identity to a WRKY polypeptide; and

(b) regenerating a plant from said plant cell wherein said isolated DNA molecule is expressed in said plant, and wherein said plant has enhanced resistance to a plant pathogen compared to a corresponding untransformed plant.

22. The method of claim 21, wherein said plant is a dicot.

23. The method of claim 22, wherein said dicot is a crucifer.

24. The method of claim 23, wherein said crucifer is Arabidopsis.

25. The method of claim 21, wherein said plant is a monocot.

26. The method of claim 21, wherein said WRKY polypeptide induces its own expression.

27. An isolated nucleic acid molecule having a nucleotide sequence for a promoter that is capable of initiating pathogen- inducible transcription in a plant cell, wherein said nucleotide sequence is selected from the group consisting of:

a) a nucleotide sequence comprising the sequence set forth in Figures 15 or 16;

b) a nucleotide sequence comprising at least 40 contiguous nucleotides of the sequence set forth in Figures 15 or 16; and

c) a nucleotide sequence that has at least about 70% sequence identity to a sequence set forth in a) or b).

28. A DNA construct comprising a nucleotide sequence of claim 27 operably linked to a heterologous nucleotide sequence of interest.

29. A vector comprising the DNA construct of claim 27.

30. A host cell having stably incorporated in its genome the DNA construct of claim 27.

31. A method for expressing a heterologous nucleotide sequence in a plant, said method comprising transforming a plant cell with a DNA construct comprising said heterologous nucleotide sequence operably linked to a promoter that is capable of initiating transcription in a plant cell and regenerating a stably transformed plant from said plant cell, wherein said promoter comprises a nucleotide sequence selected from the group consisting of:

a) a nucleotide sequence comprising the sequence set forth in Figures 15 or 16;

b) a nucleotide sequence comprising at least 40 contiguous nucleotides of the sequence set forth in Figures 15 or 16; and

c) a nucleotide sequence that has at least about 70% sequence identity to a sequence set forth in a) or b).

32. The method of claim 31, wherein said plant is a dicot.

33. The method of claim 32, wherein said dicot is a crucifer.

34. The method of claim 33, wherein said crucifer is Arabidopsis.

35. The method of claim 31, wherein said plant is a monocot.

36. A plant cell stably transformed with a DNA construct comprising a heterologous nucleotide sequence operably linked to a promoter that is capable of initiating transcription in said plant cell, wherein said promoter comprises a nucleotide sequence selected from the group consisting of:

a) a nucleotide sequence comprising the sequence set forth in Figures 15 or 16;

b) a nucleotide sequence comprising at least 40 contiguous nucleotides of the sequence set forth in Figures 15 or 16; and

c) a nucleotide sequence that has at least about 70% sequence identity to a sequence set forth in a) or b).

37 The plant of claim 36, wherein said plant is a dicot.

38. The plant of claim 37, wherein said dicot is a crucifer.

39. The plant of claim 28, wherein said crucifer is *Arabidopsis*.

40. The plant of claim 36, wherein said plant is a monocot.